

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of

Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	

To: The Commission

**COMMENTS OF COMMNET WIRELESS, LLC**

Commnet Wireless, LLC, on behalf of itself and its family of affiliated licensees (collectively, “Commnet”), hereby submits its Comments in response to the Commission’s Notice of Proposed Rulemaking (“NPRM”) herein, FCC 04-127, released June 8, 2004.<sup>1</sup> In these Comments, Commnet proposes a new procedure to govern future certifications of wireless Eligible Telecommunications Carriers (“ETCs”) in the least densely populated areas of this country. This new proposal would both increase the incentives for construction of wireless facilities to serve the least densely populated areas and decrease the growth of subsidies which threaten to deplete the Universal Service Fund (“USF”).

**Summary of Commnet Proposal**

**A. It Is Prospective Only**

Commnet’s new proposed procedure would apply only prospectively; that is, it would not apply to wireless operations which already have been certified for ETC status (or are the subject of pending applications as of the adoption date of the NPRM) and which are already being compensated under the current system. (Such previously-certified operations would continue to be treated the same as landline ETCs.) By limiting its application to future ETC certifications,

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<sup>1</sup> These Comments are timely filed. The summary of the NPRM was published in the *Federal Register* on July 7, 2004, 69 *Fed. Reg.* 40839, establishing a due date for Comments of August 6, 2004.

the new procedure can be implemented in the public interest without causing harm to the settled expectations of those who have already constructed facilities based upon business models utilizing the old regime.

## **B. Flat, Capped Reimbursement for the Least Densely-Populated Areas**

Commnet proposes an entirely new paradigm to govern subsidies to future wireless carrier ETC certifications in instances where: a) the cell site covers areas only within counties with population densities of less than 100 people per square mile; and b) the population density of the area within the cell site itself is less than 50 people per square mile. Specifically, future subsidies for operations in such lightly-populated counties should be on a per-cell-site basis, rather than a per-subscriber basis, with a cap on the per-cell subsidy. The administrative costs of keeping track of subscribers, together with the current system's absence of any subsidy for incoming roamer traffic, constitute a major disincentive to wireless carriers to serve counties with the lowest population densities, even though, from a technical standpoint, these are precisely the areas where wireless technology provides major cost advantages over landline technology, and precisely the areas least likely to be served currently by either landline or wireless carriers.

In such remote locations, wireless costs are largely fixed, and generally involve: a) amortized costs of acquiring and installing the cell site equipment; b) site rent; c) T-1 or microwave costs from the cell back to a distant switching facility; and d) costs of a separate, dedicated T-1 line from the switching facility to the local PSAP in the area covered by the cell, to enable E911. For a specialized and experienced rural carrier such as Commnet, a subsidy of only \$3,000 per month will normally make the difference between a cell being financially viable or not. And once that cell is constructed, it is available not merely for the area's residents, but

also for incoming roamers. This stands in sharp contrast to wireline subsidies paid on a per-subscriber basis, where there is no incentive whatsoever to construct pay-phone facilities for incoming visitors, nor much utility to a stationary pay-phone facility if it were constructed.

### **Specifics of the Proposal**

The proposal is as follows. Subsidies would be set at a flat rate of \$3,000 per month per cell site for wireless ETC certification where the request for ETC status: a) was filed after June 2, 2004; b) proposes coverage only in counties with overall population densities of less than 100 people per square mile; and c) has a population density within the reliable service area contour(s) of less than 10 people per square mile.<sup>2</sup> The subsidy would begin for each certified cell the first

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<sup>2</sup> Commnet recommends that the Commission use the Lee Suburban calculation methodology (“Lee Suburban”) for purposes of calculating whether a particular proposal fits the criteria. Lee Suburban, a widely accepted model used in the industry for actual network planning, is much more precise than is the methodology used in Section 22.911(a) of the Commission’s Rules (“administrative methodology”), especially for the mountainous areas of the western United States and Alaska where it is most likely to be used.

Lee Suburban works as follows. Calculations should be performed using 90m terrain data, and calculated to a received signal level of -98dBm. The following parameters are used:

Slope: 38.4 dB/decade

1 mile Intercept: -61.70

Frequency: 850MHz

Transmit Reference Antenna Height: 100ft.

Mobile Receive Reference Antenna Height: 10ft.

Transmit Reference Power: 40dBm

Calculations should be performed using the Wizard Network Design Tool Software, if possible. The predicted coverage is then imported into MapInfo, and mapping tool software, so that a polygon is drawn around the predicted coverage. The new polygon, representing the predicted coverage, is used to determine the covered square miles and the total covered population.

While the administrative methodology is fine for the purposes of Section 22.911, where it is important that the methodology be both simple and at least reasonably workable for all types of terrain, it has certain drawbacks which limit its utility in the context of the proposed ETC subsidy program. For example, the administrative methodology often predicts that a cell site on one side of a mountain will cover population on the other side of the mountain, even though in the real world the mountain acts as an absolute barrier to signals. The administrative methodology also requires that coverage only be calculated along the eight cardinal radials and then averaged over all other radials, and it assumes a minimum of 3.4 miles of coverage in any direction, even if there is a directional antenna or a mountain which limits actual coverage to far

full calendar month the cell is in operation, and would continue so long as the cell met the criteria. Please note – **Commnet’s proposal herein is intended to complement, not to replace, the current subsidy program (or whatever program replaces the current program pursuant to this rulemaking proceeding).** Commnet is not commenting upon what, if any, changes are appropriate in areas with population densities of more than 100 people per square mile, or with densities of more than ten people per square mile in the reliable service area.

Operations certified under this new regime would not report subscribership levels, and would not receive any increased or decreased subsidy based upon subscriber numbers. Those receiving the subsidy would be required to spend \$250 per month in local media outlets advertising the availability of the service. Such advertising could refer to the carrier’s own retail operations or to the retail programs of other carriers or agents who purchase service from the ETC operator. The carrier receiving the subsidy would have to charge the same rates in the subsidy area as are charged in areas not receiving subsidies. The new regime would apply both to new construction and to pre-existing cells that meet the criteria and which were not previously certified for ETC status. Finally, to ensure that government subsidy funds are being spent to expand coverage, a cell would be eligible for subsidy only if less than half its reliable service area coverage (*see* n.2, *supra*) was overlapped by another cell site operated by the same party.

### **The Proposal Comports with the Public Interest**

Commnet’s proposal is simple and administratively convenient to administer. It will thereby reduce the administrative cost of running the universal service program. Moreover, it is not subject to the vicious cycle of increasing subsidies which plagues the current system,

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less than that. In contrast, Lee Suburban calculates actual coverage along all radials, and takes into account actual terrain conditions much more precisely than does the administrative methodology.

because: 1) it is based on average costs for partial subsidy for remote rural cells,<sup>3</sup> and not upon the cost of running a landline connection to remote areas; and 2) it is not based on a per-subscriber cost, and so cannot go up as a competing carrier's costs go up when a subscriber churns.

In addition, unlike the current system, which provides incentives for “cream-skimming” the more densely populated towns and for engaging in a neverending battle to churn customers off the competing ETCs in a given geographic area, the Commnet proposal encourages the provision of service to the least densely-populated areas – the areas most likely to need additional wireless voice services, and the most likely to be underserved or even unserved.<sup>4</sup> Finally, because the subsidy is a flat amount, the carrier has no incentive to pad its operating costs. Rather, the carrier has every incentive to operate as efficiently as possible.

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<sup>3</sup> There is no cell site whose costs would be as little as \$3,000 per month to operate; but then, a carrier must have the incentive to produce its own revenues from each cell. It is unwise policy to encourage construction where there is no demand whatsoever; the \$3,000 figure (which could be revisited periodically, perhaps as part of the regular biennial review, or else set to move with inflation) is intended to be low enough not to cause cell site construction for the sole purpose of gaining a subsidy, but large enough to enable coverage to areas with real demand but insufficient revenue potential to justify construction or operation in the absence of any subsidy.

<sup>4</sup> That the new regime may apply to pre-existing cell sites not currently designated as ETC is crucial, because there are a number of existing rural cell sites which are running deficits and where, in the absence of an ETC subsidy of some sort, wireless service will have to be discontinued. For example, in the past few years, Commnet has discontinued service to such rural areas as Quijotoa, Arizona, and New Rockford, North Dakota, and has now decided not to reconstruct its deconstructed cell site at Neihart, Montana, all for economic reasons. These sites were serving a critical need, especially with regard to the provision of wireless 911 service in otherwise unserved areas. Samples of the letters which Commnet received respecting its Neihart site for the services it provided in emergency situations are attached hereto as Exhibit A.

Each of these locations could have remained in operation had a minor \$3,000/month subsidy been available; even if these cells might not have made a profit even with the subsidy, at least they would not have constituted such a drain on company resources. In addition, Commnet is operating other money-losing cell sites at this time that will have to be discontinued in the absence of a subsidy. These are in addition to the locations for which Commnet has declined to apply, but where it would apply for if it could receive a subsidy to bridge the gap between expected revenues and expected costs.

Residents of such rural areas would generally prefer wireless service to landline service – they are generally covering large areas of owned or leased real property daily, compared to their urban counterparts, and often need wireless service just to be able to initiate calls from all portions of their property. Thus, the Commnet proposal puts the subsidies for wireless where the demand for wireless is greatest.

### **The Proposal Comports with the Governing Statute**

Although the Commnet proposal is innovative, it comports with Sections 214 and 254 of the Communications Act of 1934 as amended (“Act”), 47 U.S.C. §§ 214, 254. As Section 254(c) of the Act explains:

*Universal service is an evolving level of telecommunications services that the Commission shall establish periodically under this section, taking into account advances in telecommunications and information technologies and services.*

(Emphasis added.) Thus, what was deemed to be universal service in the past is not intended to be set in stone for all time. Congress intended for the Commission to treat the universal service support system as an evolving, dynamic process, wherein the Commission adjusts to the changing needs of remote and underserved areas, while being mindful of the limited resources of the USF, and shepherding those resources so as to achieve the most “bang for the buck.”

Section 254(e) of the Act requires an ETC to offer service within the subsidy area, which the wireless carrier would be doing under the Commnet proposal. Section 254 does not require that the subsidy area of a wireless carrier be co-extensive with the study area of any landline carrier; that requirement is contained only in Part 54 of the Commission’s Rules, and was implemented only in the context of the existing subsidy program as a matter of administrative convenience. It need not be retained where, as here, it does not create administrative convenience for the Commission staff.

Section 254(e)(1)(B) of the Act also requires that an ETC advertise the availability of its services and the charges therefor; the Commnet proposal requires also that the wireless ETC do so, with a minimum of \$250 per month. However, there is no statutory requirement that an ETC offer service on a retail level; it can, consistent with the statute, advertise that it is providing wholesale service inside the coverage area to other, retail carriers to whom the residents can subscribe, and that now, if they do subscribe to the retail carrier, their phones will work in the subsidy area (where they would not have worked before).

It is also contemplated in the statute that such special, wireless-only type subsidy programs would be certified at the federal, not the state level. Section 214(e)(6) specifically provides for the Commission to certify ETCs where such carriers are “not subject to State commission jurisdiction.”

Finally, the Commission could, as it does today, issue a Public Notice announcing the filing of a request for wireless ETC designation, and provide an opportunity for rural telephone companies to comment upon whether a particular application comports with the public interest, consistent with Section 214(e)(2) of the Act. However, since by definition the new program would apply only to the lowest population density areas (the opposite of cream-skimming), the likelihood of this new program causing disruption to incumbent landline rural telephone companies is very slight.

### **Conclusion**

The public interest is best served by commencing a new program to complement the main subsidy program by encouraging wireless coverage to the lowest population density areas, through the use of a flat, partial reimbursement of \$3,000 per eligible cell site per month to wireless operators, for operation of cells within areas where: a) the request for ETC status was

filed after June 2, 2004; b) proposes coverage only in counties with overall population densities of less than 100 people per square mile; and c) has a population density within the reliable service area contour(s) of less than 50 people per square mile. Such a program would deliver a great deal of new and needed service for a relatively small expenditure of funds, and would target that service to the lowest population density areas, the areas most in need of universal service support.

The proposal is in the public interest and comports with the governing statute. It represents an innovative approach to the Commission's goal of providing telephone service, either landline or wireless, to all Americans.

Respectfully submitted,

**COMMNET WIRELESS, LLC**

August 6, 2004

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